

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE CONSTRUCTION OF A NEW TRAFFIC CONTROL SIGNAL AND PAVEMENT MARKING MODIFICATIONS AT THE INTERSECTION OF MD 458 (SILVER HILL ROAD) AT THE PENN STATION SHOPPING CENTER IN PRINCE GEORGE'S COUNTY. GEOMETRIC MODIFICATIONS ARE PROPOSED TO PROVIDE A WESTBOUND LEFT-TURN LANE. PEDESTRIAN CROSSINGS ARE PROPOSED TO CROSS THE NORTH, SOUTH AND EAST LEGS. APS WILL BE INSTALLED FOR THE PEDESTRIAN CROSSINGS. LED VEHICULAR TRAFFIC SIGNALS WILL ALSO BE INSTALLED. VIDEO DETECTION IS ALSO PROPOSED FOR PRESENCE DETECTION. NON-INVASIVE MICROLOOP PROBES ARE PROPOSED FOR SETBACK DETECTION ALONG MD 458. MD 458 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC ACTUATED MODE. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROPOSED FOR MD 458. THE NORTH- AND SOUTHBOUND SIDE STREET WILL OPERATE WITH PERMISSIVE PHASING. THE PROPOSED NORTH AND SOUTH LEG PEDESTRIAN CROSSINGS WILL RUN CONCURRENT WITH THE MAINLINE AND AN ALTERNATE SIDE STREET PHASE IS PROPOSED FOR THE EAST LEG PEDESTRIAN CROSSING.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER AND ASSOCIATED HARNESSSES IN A NEMA SIZE *6" BASE MOUNTED CABINET. INSTALL A 2-WIRE CENTRAL CONTROL UNIT AND VIDEO DETECTION CAMERA INTERFACE FOR 1-4 CAMERAS.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE INSTALLATION OF THE PHONE DROP. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: 301-513-7404

Mr. Augie Reblish
Assistant District Engineer - Utility
Phone: 301-513-7350

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7650

The Power Company Representative Is:
Potomac Electric Power Company
4061 Powder Mill Road, Suite 600
Calverton, Maryland 20705
Phone: 301-931-2880

EQUIPMENT LIST 'A'

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE	QUANTITY	DESCRIPTION
800000	1 EA	EIGHT-PHASE FULLY-ACTUATED CONTROLLER HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET WITH ALL NECESSARY HARNESSSES
800000	2 EA	TELEMETRY I/O BOARD W/HARNESS AND QUICK CONNECT BLOCK
800000	1 EA	2-WIRE CENTRAL CONTROL UNIT
800000	6 EA	ACCESSIBLE PEDESTRIAN PUSHBUTTON AND SIGN
800000	1 EA	VIDEO DETECTION CAMERA INTERFACE (1-4 CAMERAS)
800000	6 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	6 EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
800000	182 SF	FURNISH AND INSTALL SHEET ALUMINUM SIGNS - MAST ARM/GROUND MOUNT 1 EA - SHIELD ASSEMBLY (48"x75") "WEST, MD 458, LEFT ARROW" 1 EA SHIELD ASSEMBLY (30"x51") "EAST, MD 458, RIGHT ARROW" 1 EA - SHIELD ASSEMBLY (48"x75") "EAST, MD 458, LEFT ARROW" 1 EA - SHIELD ASSEMBLY (30"x51") "WEST, MD 458, RIGHT ARROW" 2 EA - D-3(1) (VARx16") "SILVER HILL ROAD" 1 EA - D-3(3) (72"x24") "MARLBORO PIKE" 1 EA - D-3(3) (72"x24") "OLD SILVER HILL RD" 1 EA - D-3(3) (72"x24") "PENNSYLVANIA AVE" 1 EA - R4-7 (24"x30") 2 EA - R3-5L (30"x36") 2 EA - W3-3 (36"x36") 2 EA - D95-25 (24"x24") 4 EA - R10-3(1) (9"x15") "PUSH BUTTON TO CROSS DRIVEWAY" 2 EA - R10-3(1) (9"x15") "PUSH BUTTON TO SILVER HILL RD"
800000	2 EA	15 FOOT STEEL T POLE WITH 50 FOOT MAST ARM
800000	2 EA	27 FOOT STEEL POLE (T=15) WITH 50 FOOT MAST ARM
800000	1 EA	5 FOOT BREAKAWAY PEDESTAL POLE
807202	1 EA	METERED SERVICE PEDESTAL
810601	3 EA	NON-INVASIVE MICROLOOP PROBE, 500 FOOT LEAD-IN CABLE
810605	3 EA	NON-INVASIVE MICROLOOP PROBE, 1000 FOOT LEAD-IN CABLE
816001	4 EA	VIDEO DETECTION CAMERA
816005	1 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816010	3 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
818004	3 EA	10 FOOT BREAKAWAY PEDESTAL POLE
860284	2 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860284	30 EA	

EQUIPMENT LIST 'B'

EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

CAT CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	5 CY	TEST PIT EXCAVATION
585405	150 LF	5 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585407	100 LF	5 INCH YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585412	360 LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585424	150 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585458	1 EA	PERMANENT PREFORMED PAVEMENT MARKING ARROW
585462	120 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
800000	1 EA	AS BUILT FOR SHA ON CADD
800000	275 LF	1 CONDUCTOR, 250 KCML, CU, USE
801004	19 CY	CONCRETE FOR SIGNAL FOUNDATION
801104	15 LF	WOOD SIGN SUPPORTS, 4 INCH X 4 INCH
801106	80 LF	WOOD SIGN SUPPORTS, 4 INCH X 6 INCH
801711	68 SF	REMOVE AND DISPOSE OF EXISTING GROUND MOUNTED SIGNS AND SUPPORTS
802501	775 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	240 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
805118	340 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
805125	135 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805135	655 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805140	270 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
811011	15 EA	ELECTRICAL HANDHOLE
837001	7 EA	GROUND ROD - 3/4 INCH DIAMETER BY 10 FOOT LENGTH
861105	1050 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
861107	1150 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
861108	1350 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

CAT CODE	QUANTITY	DESCRIPTION
NONE - ALL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR		

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
PHASE 1 + 5			R			R	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 1 + 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1+6, PHASE 2+5 OR PHASE 2+6										DW	DW	DW	DW	DW	DW	
PHASE 1 + 6			G	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 1 CHANGE			G	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 2 + 5	R	R	R			G	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 5 CHANGE	R	R	R			G	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	W	W	W	W	DW	DW	
PEDESTRIAN CLEARANCE	G	G	G	G	G	G	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 4 + 8	R	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	
PHASE 4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	
PHASE 4 + 8 ALT	R	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW	W	W	
PEDESTRIAN CLEARANCE	R	R	R	R	R	R	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	
PHASE 4 + 8 ALT CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	

LENHART TRAFFIC CONSULTING
TRAFFIC ENGINEERING & TRANSPORTATION PLANNING

331 Redwood Grove Court Millersville, Maryland 21108
Tel: (410) 987-3888 Fax: (443) 782-2288

APPROVAL:
REDLINE REVISION
10-10-2007

PLOTTED: 10/10/2007
FILE: F:\MD 458 AT PENN STATION\11986082.DGN

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION	
MD 458 (SILVER HILL ROAD) AT PENN STATION SHOPPING CENTER	
GENERAL INFORMATION - 01	
SCALE NONE	DATE MAR 2007
CONTRACT NO. BW996M82	
DESIGNED BY MML	COUNTY PRINCE GEORGE'S
DRAWN BY MML	LOGMILE 16045802.51
CHECKED BY MML	T.I.M.S. NO. 1-198
F.A.P. NO.	TOD NO.
DRAWING NO. TS-4557-GI-1	OF SHEET NO. 2 OF 6